



## PRODUCT DESCRIPTION

### CALCIUM ALUMINATE CEMENT

# GÓRKAL 50

## GENERAL CHARACTERISTICS

**GÓRKAL 50** is hydraulic binder for refractory and building applications. Fast strength development (80% in 12h from preparation) and short setting time are advantages of **GÓRKAL 50** cement. **GÓRKAL 50** material is manufactured and controlled with respect to PN-EN 14647 norm.

## APPLICATION

Thanks to stable phase composition with perfect mechanical properties **GÓRKAL 50** can be use in building chemistry mortars and concrete as well as part of refractory insulation pulps or other monolithic products.

## CHEMICAL COMPOSITION

**GÓRKAL 50** principal components:

component	Typical values [%]
Al <sub>2</sub> O <sub>3</sub>	50 - 55
CaO	<36
SiO <sub>2</sub>	<4
Fe <sub>2</sub> O <sub>3</sub>	<10

*The characteristics have been determined by classical analysis*

## MINERALOGICAL COMPOSITION

Principal phases: CA  
Secondary phase: CA<sub>2</sub>, C<sub>4</sub>AF, C<sub>12</sub>A<sub>7</sub>, C<sub>2</sub>AS  
This information is just given as rough one.

## SPECIAL PROPERTIES

**GÓRKAL 50** is characterised by some special features:

Specific surface acc. to Blaine	3200 - 3500 cm <sup>2</sup> /g
Refractoriness	≥146 sP
Density	3,0 g/cm <sup>3</sup>
Bulk density	1,1 g/cm <sup>3</sup>

## HYDRAULIC PROPERTIES

**GÓRKAL 50** hydraulic properties:

	Typical values [minutes]
Initial setting time	>90
Final setting time	<480

*Determined acc. to EN-196-3*

## MECHANICAL PROPERTIES

**GÓRKAL 40** is characterised by following mechanical strengths:

Cold Crushing Strength after 6h	>18 MPa
Cold Crushing Strength after 24h	>45 MPa

*The mixture composition is: 1350 g French sand  
500 g cement  
200 g water*

*Determined acc. to EN-196-1*

## SHELF LIFE

If stored properly, in dry conditions, the **GÓRKAL 50** shelf-life can be 6 months. Please contact Górka Cement Development, Quality and Controls Department for details of storage.